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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,603	08/24/2006	Haruhito Sato	291971US0PCT	8965

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EXAMINER	
KEYS, ROSALYND ANN	

ART UNIT	PAPER NUMBER
1621	

NOTIFICATION DATE	DELIVERY MODE
09/28/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/590,603	SATO ET AL.	
	Examiner	Art Unit	
	Rosalynd Keys	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,18 and 19* is/are pending in the application.

4a) Of the above claim(s) *1,2 and 6-9* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5,10,11,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 1-11, 18 and 19 are pending.

Claims 3-5, 10, 11, 18 and 19 are rejected.

Claims 1, 2, and 6-9 are withdrawn from consideration.

Claims 12-17 are canceled.

Election/Restrictions

2. Applicant's election without traverse of Group II, claims 3-5, 10, 11, 18 and 19 in the reply filed on July 16, 2009 is acknowledged.

3. Claims 1, 2, and 6-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 16, 2009.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

5. The information disclosure statement (IDS) submitted on August 24, 2006 has been considered by the examiner.

The references cited in the Search Report filed August 24, 2006 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Mazet (Bulletin de la Societe Chimique de France, (12), 1969, CAPLUS printout).

Mazet discloses the compound 5,5-dibutyl-2-(1-butylhexyl)-1,3-dioxane (see attached CAPLUS printout).

8. Claims 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Annex to Official Journal of the European Communities, June 15, 1990 (CHEMLIST printout).

Annex to Official Journal of the European Communities disclose the compound 2-(1-butylheptyl)-1,3-dioxolane (see attached CHEMLIST printout).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 3, 10, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mazet (Bulletin de la Societe Chimique de France, (12), 1969,

CAPLUS printout) in view of Cramarossa et al. (Tetrahedron, Vol. 53, No. 46, November 1997, pp. 15889-15894).

Mazet discloses 5,5-dibutyl-2-(1-butylhexyl)-1,3-dioxane, which is a compound having the claimed formula (2) but fail to disclose the claimed methods of making said compounds.

Cramarossa et al. teach that usually acetals are prepared from carbonyl compounds, such as aldehydes, and alcohols, diols or orthoesters using acid catalysts (see the last paragraph on page 15889).

One having ordinary skill in the art at the time the invention was made would have found it obvious to prepare the compound of Mazet by a known method for making acetals, such as the one disclosed by Cramarossa et al. "A person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." KSR International Co. v. Teleflex Inc., 550 U.S.___, 82 USPQ2d 1385, 1395-97 (2007).

13. Claims 3-5, 10, 11, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Annex to Official Journal of the European Communities in view of Cramarossa et al. (Tetrahedron, Vol. 53, No. 46, November 1997, pp. 15889-15894).

Annex to Official Journal of the European Communities disclose the compound 2-(1-butylheptyl)-1,3-dioxolane, which is a compound having the claimed formula (3) but fail to disclose the claimed methods of making said compounds.

Cramarossa et al. teach that usually acetals are prepared from carbonyl compounds, such as aldehydes, and alcohols, diols or orthoesters using acid catalysts (see the last paragraph on page 15889).

One having ordinary skill in the art at the time the invention was made would have found it obvious to prepare the compound of Annex to Official Journal of the European Communities by a known method for making acetals, such as the one disclosed by Cramarossa et al. "A person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." KSR International Co. v. Teleflex Inc., 550 U.S.___, 82 USPQ2d 1385, 1395-97 (2007).

14. Claims 3, 4, 10, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomiyama et al. (US 4,631,292).

The instant claims are directed to an alkylacetal having the general formula (2) and methods of making said alkylacetal comprising reacting an alcohol, such as a glycol with an epoxide or an aldehyde.

Tomiyama et al. suggests the instant invention because although Tomiyama et al. do not expressly disclose a compound having the claimed general formula (2) the compound is suggested as well as a method of making said compound by reacting a glycol with a compound having a formula (III). The formula (III) compounds include aldehydes (see col. 1, line 25 to col. 3. line 3). The expressly disclosed compound of Tomiyama et al. that is closest to the claimed compound (2) is compound 3 (see col. 1,

line 68 and Table 4). The difference between compound 3 of Tomiyama et al. and the instant disclosed compound (2) is that compound 3 is not branched. However, in col. 1, lines 62-63, Tomiyama et al. teach that in their compound of the general formula I, which includes their compound 3 and which corresponds to the claimed compound of the general formula (2), A may also be a branched alkyl having 3-15 carbon atoms. The claims would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." KSR International Co. v. Teleflex Inc., 550 U.S.___, 82 USPQ2d 1385, 1395-97 (2007).

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 3-5, 10, 11, 18 and 19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 11/575,255. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims and the claims of copending Application No. 11/575,255 having overlapping subject matter when in the instant claimed compounds (2) and (3), k is 0 for compound (2) and R5 and R6 are H for compounds (2) and (3).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nerdel et al. (Justus Liebigs Annalen Der Chemie, 1967, vol. 1967:710, pp. 85-89) disclose alkylacetal compounds that are similar in structure to the claimed alkylacetal compound (see entire disclosure, in particular Table 1 on page 86).

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is (571)272-0639. The examiner can normally be reached on M-F 5:30 am-7:30 am and 9:15 am-3:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Sullivan can be reached on 571-272-0779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rosalynd Keys/
Primary Examiner, Art Unit 1621

September 22, 2009